REMARKS

U.S. Patent No. 5,445,273

The Examiner has rejected claims 1-7 and 9-15 as anticipated by U.S. Patent No. 5,445,273. The '273 patent does not include a drag rail formed on an underside portion of the bottom surface, as claimed in claim 1. The "rails at the bottom periphery of the crate" in the '273 patent are not "formed on an underside portion of the bottom surface," but are actually positioned upward of the bottom surface of the crate, as can be seen in Fig. 5 of the '273 patent. In other words, the rails to which the Examiner refers would not be in contact with the floor if the crate of the '273 patent were placed on the floor and are thus neither "drag rails" nor "formed on an underside portion of the bottom surface" as required by claim 1. Further, the bottom peripheral rail of the '273 patent is at the outer peripheral edge of the crate, not inward of an outer peripheral support surface of the crate, as is now claimed. Claim 1 has further been amended to specify that a "top surface of the side wall would contact an outer peripheral support surface (outward of the drag rail) of a like crate stacked thereon." The trays in the '273 patent do not stack upon the top surfaces of the side walls, but rather nest within each other. Thus, for example, when the crates of the present invention are full, the weight of the crates and goods is supported by the side walls, whereas in the trays of the '273 patent, the weight is supported by the goods themselves (e.g. the cans). For any of these reasons, claim 1 is patentable over the '273 patent.

Dependent claim 5 further specifies that the "at least one selected area comprises a portion of the inner surface of the side walls formed without taper." The '273 patent does not include a side wall with a taper, and particularly does not include a selected area which comprises a portion formed without taper in order to

provide a tighter fit with the drag rail of a crate stacked thereon. Rather, to the extent the Examiner considers portion 100 in the '273 patent to meet the "at least one selected area" element of claim 5, that item 100 protrudes from the surface of band 30 and is not a portion formed without taper. Therefore, Claim 5 is patentable independently of claim 1.

The tray in the '273 patent does not include side walls that taper outwardly as claimed in claim 6. What the Examiner calls a side wall (presumably band 30) is not tapered. Therefore, claim 6 is patentable over the '273 patent.

The '273 patent does not disclose a side wall with a thickness that decreases as the side wall extends upwardly and does not disclose at least one selected area which comprises a portion of the side wall where the thickness is reduced less. Therefore, new claim 26 is patentable over the '273 patent.

New claim 27 further depends from claim 25 and specifies that at least one portion of an upper edge of the side wall is vertically aligned with at least one portion of a lower edge of a side wall. This permits the side walls of stacked crates to support one another, rather than nesting. In contrast, in the '273 patent, if portion 100 and band 30 are together taken to be the side wall (as the Examiner suggests), then the portion 100 nests within the band 30 of a lower crate when stacked. Therefore, the upper edge of the side wall in the '273 patent (which would be band 30) is not aligned with the lower portion of the side wall (item 100). Therefore, claim 27 is patentable over the '273 patent.

New claim 28 depends from claim 27 and further specifies that the side wall meets the bottom surface of the lower corner of the crate and that the drag rail protrudes downward from the underside of the bottom surface at the lower corner. Again, the '273 patent does not disclose a drag rail which protrudes downward from

the underside of the bottom surface at the lower corner. Therefore, claim 28 is properly allowable.

New dependent claim 29 depends from dependent claim 28 and specifies that an outer surface of the side wall is generally perpendicular to the bottom surface. In effect, this limitation is related to the fact that the side walls of stacked crates support one another in the present invention. In the '273 patent, the outer surface of what the Examiner refers to as the side wall (items 30 and 100) is not generally perpendicular to the bottom surface. Again, in the '273 patent this has the effect of permitting the side walls of stacked trays to nest within one another, rather than support one another. Therefore claim 29 is independently patentable over the '273 patent.

New independent claim 32 specifies first and second identical stacked crates of the type generally claimed previously. Claim 32 specifies that the first crate is supported on a top surface of the side wall of the second crate. In the '273 patent, stacked trays are not supported on a top surface of band 30, but rather are on the "corner nesting ledge" 110. Therefore new claim 32 is patentable over the '273 patent.

New claim 33 depends from new claim 32 and specifies that the side wall of the first crate is positioned directly on top and supported by the side wall of the second crate. In the '273 patent, referring to Figure 11, the band 30 and portion 100 are not positioned directly on top of and supported by the band 30 and portion 100 of the second crate. Therefore, claim 33 is allowable.

In the '273 patent there is no portion of the side wall positioned directly on top of both the side wall of the second crate and the drag rail of the first crate, as required by claim 34. In the present invention, the weight of the upper crate (and

any crates stacked on top of the upper crate) is distributed to both the side wall of the lower crate and the drag rail of the upper crate. Thus, when the crate is stacked on top of a lower crate, the weight will be transferred by the side wall to the side wall of the lower crate. Also, when the crate is on a flat surface, such as a floor, the weight from the crate (and any crates stacked on top of the crate) is transferred by the side wall directly to the drag rail, thus avoiding the "fulcrum" effect described in Applicants' Background of the Invention section. In the '273 patent, however, the band 30 and portion 100 does not come into direct contact with the top of the band 30 of the lower tray, as specified in claim 34. Therefore, claim 34 is patentable over the '273 patent.

New independent claim 35 specifies that "at least one portion of an upper edge of each of the side walls being vertically aligned with at least one portion of a lower edge of each of the side walls." As explained above, the upper portion 30 of what the Examiner refers to as the side wall is not vertically aligned with the lower portion 100, which can be seen in Figure 11, since the lower portion 100 nests within the upper portion 30. Additionally, as explained above, in the '273 patent, what the Examiner refers to as the drag rail, the rail at the bottom periphery, is actually positioned upward of the bottom surface, not "a drag rail formed on an underside portion of the bottom surface." Therefore, for either of these reasons, claim 35 is patentable over the '273 patent.

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The '273 patent does not disclose a drag rail formed on an underside portion of the bottom surface as specified by independent claim 7. Rather, as explained above, in the '273 patent, what the Examiner refers to as the drag rail, the rail at the bottom periphery, is actually positioned upward of the bottom surface, not "a drag

rail formed on an underside portion of the bottom surface." Therefore, claim 7 is patentable over the '273 patent.

The Examiner has indicated that it would be obvious to modify the design shown in the '273 patent to include a variable radius blend into the bottom surface, as claimed in claim 8. However, this would be undesirable if not impossible in the design in the '273 patent. It is believed that the Examiner is referring to the band 30 and portion 100 as the side wall and to the bottom peripheral rail as the drag rail. Therefore, the side wall, particularly portion 100, is already positioned over the bottom peripheral rail. In Applicants' invention, the purpose of the variable radius blend is to provide the side wall with support directly from both the drag rail and the portion to which the side wall extends outwardly of the drag rail, which would rest on top of a side wall of a lower crate when the crates are stacked. In this manner, the side wall is directly supported when placed either on the floor or on top of another crate. In the '273 patent, however, (again assuming the corresponding parts as indicated above), there is no portion of what the Examiner refers to as the side wall (30/100) which does not extend over the bottom peripheral rail, nor could there be, since the bottom peripheral rail and portion 100 both must be able to nest within the band 30. Therefore, claim 8 is not obvious over the '273 patent.

New claim 30 depends from claim 7 and further specifies that the drag rail protrudes downward from the underside portion of the bottom surface inward of the outer edge of the crate. As explained above, the '273 patent does not include such a drag rail. Claim 30 further specifies a contact surface on a lower edge of the side wall and outward of the drag rail at the lower corner, the contact surface dimensioned so as to rest on a top surface of a side wall on an identical crate. As shown in Figure 11 of the '273 patent, what the Examiner refers to as the side walls

30/100 actually nest within the band 30 of the lower crate, and thus do not "rest on a top surface of the side wall of an identical crate" as required by claim 30.

U.S. Patent No. 4,932,532

The Examiner has also rejected claims 1-7 and 9-15 as anticipated by U.S. Patent No. 4,932,532. Like the '273 patent, the '532 patent discloses a stackable tray in which the goods (cans) would support the weight of additional trays stacked thereon. Regarding Applicants' claim 1, as can be seen in Figures 1 and 7, the side wall of the '532 patent is not "formed so that at least a portion of an opening in the crate has a larger dimension than the bottom surface." Rather, the dimension of the opening is constant and the same as the bottom surface. Additionally, as can also be seen in Figure 7, item 36, which the Examiner refers to as the "drag rail," is positioned tightly against the side wall of the lower crate. Therefore, item 36 does not extend downward into the lower crate sufficiently to be positioned within the structures 79. Thus, the structures 79 are not a "portion of the inner surface of the side wall formed to reduce the dimension of the crate opening in at least one selected area so as to provide a tighter fit with a drag rail" as required by claim 1. The reinforcing posts 79 do not contact and thus do not "provide a tighter fit" with a drag rail of a like crate stacked thereon. Therefore, for this additional reason, claim 1 is patentable over the '532 patent.

The '532 patent does not disclose at least one selected area comprising a portion of an inner surface of a side wall formed without taper, as required by claim 5. The side wall of the tray in the '532 patent does not show a taper at all, and thus does not show at least one selected area formed without taper. In particular, the support structure 79 protrudes inwardly from the side wall in the '532 patent and thus is not simply a portion "formed without taper" as required by claim 5.

The '532 patent does not disclose a side wall tapering outwardly from a vertical plane as the side wall extends upwardly from the bottom surface to enlarge a top opening of the crate, as required claim 6. The side walls in the '532 patent are not tapered, as can be seen in Figure 7.

The '532 patent does not disclose "an inner surface of the side wall moving outwardly from a vertical plane as the side wall extends upwardly from the bottom surface to enlarge a top opening of the crate" as required by new independent claim 32. As explained above, the '532 patent does not "enlarge a top opening of the crate." Further, the '532 patent does not disclose at least one selected area providing a tighter fit between the drag rail of the first crate and at least one selected area, as claimed by new independent claim 32. Rather, the dimension of the opening in the tray of the '532 patent is constant and the same as the bottom surface. Therefore, claim 32 is patentable over the '532 patent.

Similarly, new independent claim 35 is not anticipated by the '532 patent. The '532 patent does not disclose "an inner surface of each of the side walls moving outwardly from a vertical plane as the side wall extends upwardly from the bottom surface to enlarge an upper opening of the crate" as required by claim 35. Further, the '532 patent does not disclose "a portion of the inner surface...formed to reduce the dimension of the upper opening of the crate...to provide a tighter fit with a drag rail of an identical crate." Rather, as explained above, the support posts 79 do not contact the drag rail and do not "provide a tighter fit with the drag rail." Therefore, for either of these reasons, claim 35 is patentable over the '532 patent.

The '532 patent does not disclose a drag rail formed on the underside portion of the bottom surface. Rather, as can be seen in Figure 2 of the '532 patent, what the Examiner refers to as the drag rail is the bottom surface of the tray, not a drag rail

formed on the underside portion of the bottom surface. Therefore, claim 7 is patentable over the '532 patent.

The Examiner has indicated that claim 8 is obvious over the '532 patent because it would be obvious to use a variable radius blend in order to alleviate stress concentration at the bottom corner junction of the side wall. However, alleviating stress concentration ***is*** the purpose of the support posts 79 in the '532 patent and yet they do not disclose a variable radius blend. In fact, if, as suggested by the Examiner, the motivation to add a structure similar to the support posts 79 was to provide "round inside corners between the bottom surface and the side wall surface" to alleviate stress concentration, a variable radius blend would not be provided. Rather, it is only Applicants' invention and the benefits identified by Applicants which suggest a variable radius blend to extend over the drag rail. In particular, the variable radius blend is provided in Applicants' invention in order to distribute weight on the side wall to both the drag rail, when the crate is on the floor, and to the lower edge of the side wall and the top of a side wall on which the crate is stacked, when the crate is stacked on another crate. Since the item 36 is not really a drag rail, but rather the bottom surface of the tray, and because a large portion of the surface of the tray in the '532 patent would be in contact with the ground, there is no need or desire to distribute weight from the side wall directly to the "drag rail" in the '532 patent. Therefore, claim 8 is not made obvious by the '532 patent.

New independent claim 29 depends from claim 7 and specifies that the drag rail protrudes downward from the underside portion of the bottom surface. As explained above, the '532 patent does not disclose such a drag rail. Therefore, claim 29 is patentable.

U.S. Patent No. 4,848,580

The Examiner has rejected claims 1-6 as anticipated by U.S. Patent No. 4,848,580. To the extent the Examiner considers the ridges 27, 29, 31 to be "drag rails," the outer ridges 27 and 31 are not "positioned inward of an outer support surface of the crate." Nor can the inner ridge 29 meet the "drag rail" limitation because there is no "portion of an inner surface of the side wall . . . formed to . . . provide a tighter fit with a drag rail of a like crate stacked thereon" because the inner ridge 29 is spaced so far inward of the outer peripheral edge of the crate (even on axial ends of the ridge 29) that there is no portion of the side wall that would provide a "tighter fit" with the ridge 29. Additionally, for all of the ridges, 27, 29, 31, when the containers in the '580 patent are nested, the ledge 67, upon which the ridge 27 sits, positions the ridges 27, 29 and 31 *below* the gussets 85, 87, 89, 91 on which the Examiner relies to meet the "portion of the inner surface" limitation of claim 1. Thus, these gussets would not meet the "portion of an inner surface . . . to provide a tighter fit with a drag rail" limitation of claim 1. For these reasons, claims 1-6 are patentable over the '580 patent.

CONCLUSION

Applicants appreciate the Examiner's thorough review of the application, and believe that the application is in a condition for allowance. A notice of such allowance is respectfully requested. Further, if the Examiner believes that a telephone conference would help to expedite prosecution of this matter, he is invited at his convenience to contact the undersigned.

Respectfully submitted,

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Version with markings to show changes made

IN THE CLAIMS

1. (AMENDED) A stackable crate for holding and transporting products comprising:

a side wall integrally formed with a bottom surface, the side wall formed so that at least a portion of an opening in the crate has a larger dimension than the bottom surface; and

a drag rail formed on an underside portion of the bottom surface and positioned inward of an outer peripheral support surface of the crate, the side wall formed so that a top surface of the side wall would contact an outer peripheral support surface of a like crate stacked thereon,

wherein a portion of an inner surface of the side wall is formed to reduce the dimension of the crate opening in at least one selected area so as to provide a tighter fit with a drag rail of [a] the like crate stacked thereon.